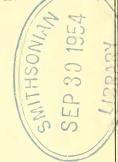
OPINIONS AND DECLARATIONS RENDERED BY THE INTER-NATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

Edited by

FRANCIS HEMMING, C.M.G., C.B.E.

Secretary to the Commission

VOLUME 6. Part 1. Pp. 1-24, 1 plate



OPINION 269

Validation, under the Plenary Powers, of the specific name *idas* Linnaeus, 1761, as published in the combination *Papilio idas*, and determination of the species represented by the nominal species *Papilio idas* Linnaeus, 1761, *Papilio argyrognomon* Bergsträsser [1779], and *Papilio argus* Linnaeus, 1758 (Class Insecta, Order Lepidoptera)

LONDON:

Printed by Order of the International Trust for Zoological Nomenclature

and

Sold on behalf of the International Commission on Zoological Nomenclature by the International Trust at its Publications Office 41, Queen's Gate, London, S.W.7

1954

Price Thirteen Shillings and Sixpence

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OPINION 269

VALIDATION, UNDER THE PLENARY POWERS, OF THE SPECIFIC NAME "IDAS" LINNAEUS, 1761, AS PUBLISHED IN THE COMBINATION "PAPILIO IDAS", AND DETERMINATION OF THE SPECIES REPRESENTED BY THE NOMINAL SPECIES "PAPILIO IDAS" LINNAEUS, 1761, "PAPILIO ARGYROGNOMON" BERGSTRÄSSER, [1779], AND "PAPILIO ARGUS" LINNAEUS, 1758 (CLASSINSECTA, ORDER LEPIDOPTERA)

RULING:—(1) Under the Plenary Powers, the specific name *idas* Linnaeus, 1758, as published in the combination *Papilio idas*, is hereby suppressed for the purposes both of the Law of Priority and of the Law of Homonymy.

(2) The following directions are hereby given for the determination of the species represented by the nominal species specified below:—(a) The specific name idas Linnaeus, 1761, as published in the combination Papilio idas, is to be applied to the species, the nominate subspecies of which was collected by Linnaeus in Sweden, the male genitalia of which show the characters exhibited in the photograph reproduced as figure 7 on plate III in volume 14 of Oberthur, Etudes de Lépidoptérologie comparée. (b) The specific name argyrognomon Bergsträsser [1779], as published in the combination Papilio argyrognomon, is to be applied to the species, the nominate subspecies of which was described by Bergsträsser from specimens collected in the "Bruchköbler Wald" in the "Grafschaft Hanau-Münzenberg", the male genitalia of which show the characters exhibited in the photograph reproduced as figure 23 on plate VIII in the volume cited in (a) above. (c) The specific name argus Linnaeus, 1758, as published in the combination Papilio argus, is to be applied to the species, the nominate subspecies of which was described

by Linnaeus from specimens collected in Sweden, the male genitalia of which show the characters exhibited in the photograph reproduced as figure 1 on plate XX in volume 3 of Tutt, Natural History of the British Butterflies.

- (3) The specific name *idas* Linnaeus, 1758, as published in the combination *Papilio idas*, as suppressed under (1) above, is hereby placed on the *Official Index of Rejected and Invalid Specific Names in Zoology* as Name No. 23.
- (4) The under-mentioned specific names, determined as prescribed in (2) above, are hereby placed on the Official List of Specific Names in Zoology as Names Nos. 85 to 87:—(a) idas Linnaeus, 1761, as published in the combination Papilio idas; (b) argyrognomon Bergsträsser [1779], as published in the combination Papilio argyrognomon; (c) argus Linnaeus, 1758, as published in the combination Papilio argus.

I.—THE STATEMENT OF THE CASE

On 2nd December 1936 M. Henry Beuret (Neuewelt, Basel, Switzerland) addressed to the International Commission on Zoological Nomenclature a preliminary communication, drawing attention to the serious confusion which had arisen in the nomenclature of certain allied Lycaenid butterflies, following the discovery that the name Papilio argyrognomon Bergsträsser [1779], which was habitually applied to one of these species, rightfully belonged to another of these species. In this communication, M. Beuret suggested that a solution of the difficulties which had arisen should be provided by the use by the International Commission of its Plenary Powers for the purpose of suppressing the specific name idas Linnaeus, 1758, as published in the combination Papilio idas (a name belonging to some species of Oriental Hesperiid, which no specialist had ever been able definitely to

identify), for this action would have the effect of validating the name *idas* Linnaeus, 1761, as published in the combination *Papilio idas*, a name published for the Lycaenid species to which until recently it had been thought that the specific name *argyrognomon* Bergsträsser [1779], as published in the combination *Papilio argyrognomon*, was applicable. This, it was urged, appeared to be the only practicable way by which to provide the foregoing species with a name which was not compromised through having been applied to another of the allied species concerned and which would be readily recognisable by specialists in the group concerned.

2. Following the receipt of the foregoing communication, extensive consultations took place between Mr. Francis Hemming who had recently succeeded Dr. C. W. Stiles as Secretary to the Commission, and M. Beuret and other interested specialists. These discussions led ultimately to the submission to the International Commission of the following formal application prepared jointly by Mr. Hemming (in his capacity as a lepidopterist) and M. Henry Beuret:—

Proposed use of the Plenary Powers to validate the trivial name "idas" Linnaeus, 1761, as published in the combination "Papilio idas", for use for the species now referred to the genus "Lycaeides" Hübner, [1819], and formerly commonly but incorrectly known by the trivial name "argyrognomon" Bergsträsser, [1779], as published in the combination "Papilio argyrognomon" (Class Insecta, Order Lepidoptera)

By

FRANCIS HEMMING, C.M.G., C.B.E. (London)

and

HENRY BEURET (Neuewelt, Basel, Switzerland)

The purpose of the present application is to invite the International Commission on Zoological Nomenclature to use its Plenary Powers in such a way as to put an end to the inextricable confusion in which the nomenclature of three species has become involved—a state of confusion which cannot be remedied in any other way. The species principally concerned is a widespread European Lycaenid (Class

Insecta, Order Lepidoptera). The confusion which it is the object of this application to resolve arises from the misidentification in the past of this species with two other species, very similar in appearance, and the repeated mis-application of the names published for these species.

2. In order to present this complicated case in as simple a manner as possible and in a way which will be intelligible to the zoologists who will be called upon to consider the present proposals but who are not themselves personally conversant with the species concerned, it appears to us that the most convenient course will be at the outset of the present application briefly to characterise the three species involved under the titles Species "A", Species "B", and Species "C", and thereafter to refer to these species under these titles. The indications given below are not intended to provide full diagnostic characters for the species concerned, the present object being merely to provide in the simplest form means by which these three species may be separated from one another. The characters most easily recognisable for this purpose—and also the characters most commonly relied upon by specialists in this group—are those provided by the male genitalia.

(1) Species "A"

Species "A" is widely distributed throughout the Palaearctic Region and, unlike Species "B" and "C", occurs in the West Palaearctic Region in England and Wales, where it is known as the "Silver-Studded Blue".

Structurally, Species "A" is very distinct from Species "B" and Species "C", with which it is not now regarded as being congeneric. Species "A" is the type species of the genus Plebejus Kluk, 1802 (Zwierz. Hist. nat. pocz. gospod. 4:89), having been so selected by Hemming in 1933 (Entomologist 66:224). Species "C" is the type species of the genus Lycaeides Hübner, 1819 (Verz. bekannt. Schmett. (5):69). This latter genus was based upon a misidentified type species, and Species "C" only became its valid type species by action taken by the International Commission under its Plenary Powers at Lisbon in 1935 (see 1943, Bull. zool. Nomencl. 1:24). The Commission's decision in this case was in 1943 formally embodied in Opinion 169, which was published in 1945 (Ops. Decls. int. Comm. zool. Nomencl. 2:431-442). Species "B" is treated by all specialists as being congeneric with Species "C".

The male genitalia in Species "A" differ very markedly from those in Species "B" and "C". In Species "A", the two portions of the uncus are slender and of almost equal breadth throughout their length. When mounted flat on a slide—the position in which they can most conveniently be studied—these

processes assume—as was pointed out many years ago by Dr. Thomas Algernon Chapman—an outline remarkably similar to that of the tail of the Lyre Bird. The lateral apophyses to the uncus are long and slender, being nearly straight after the bend at their point of origin until at their extremity they bend slightly outwards, where they taper to a hook. The clasps of the male genitalia bear along the spiracular branch a series of large, coarse spines, some five or six in number. The general appearance of the male genitalia of Species "A" is well shown in a slide prepared by Chapman and figured by Tutt in 1909 (Nat. Hist. brit. Butts. 3: pl. XX, fig. 1). In the same work the uncus and its lateral apophyses are shown on a larger scale on pl. XXI, fig. 1, and the extremity of the clasps on plate XXII, fig. 1. Other species of the genus *Plebejus* Kluk exhibit structures similar in general form to those found in Species "A", but the corresponding structures in other Plebeid genera, particularly in the genus Lycaeides Hübner, to which, as already explained Species "B" and "C" are referable, are strikingly different.

(2) Species "B" and "C": common characters

Species "B" is widely distributed in West, Central and Southern Europe and extends also into Scandinavia. It does not occur, however, in the British Isles. Its distribution eastwards is at present imperfectly known, for the eastern subspecies formerly associated with this species have been found to belong to the (relatively) recently separated species, Species "C". The distribution of Species "C" in Europe resembles broadly that of Species "B", but it does not extend so far to the west. Like Species "B", Species "C" does not occur in the British Isles.

As already noted (under (1) above), Species "C" is the type species of the genus *Lycaeides* Hübner, [1819], to which also Species "B" is referred.

The male genitalia of the foregoing and other species of the genus Lycaeides present an appearance totally different from that exhibited by those of the genus Plebejus (Species "A" and others). The two portions of the uncus are relatively shorter than in Plebejus, are much more massive, and exhibit, when mounted flat on a slide, the appearance of a narrowly based isosceles triangle, thus entirely lacking the lyre-like appearance so characteristic of Plebejus. The lateral apophyses of the uncus are also strikingly different from Plebejus, for instead of being nearly straight throughout their length, they are sickle shaped. The terminal portion of the clasp also differs greatly from that in Plebejus, for the few coarse spines which render this process in Plebejus so characteristic are replaced in Lycaeides by a much larger number of fine pointed teeth.

EXPLANATION TO PLATE 1

MALE GENITALIA OF THE THREE SPECIES DISCUSSED IN THE APPLICATION SUBMITTED JOINTLY BY MR. FRANCIS HEMMING (LONDON) AND M. HENRY BEURET (NEUEWELT NEAR BASEL)

Figure "A":

Male genitalia of the species referred to in the present application as Species "A"

The species here portrayed is the widely distributed Palaearctic species which in the West extends as far as England and Wales, where it is known as the "Silver-Studded Blue". This species is *Papilio argus* Linnaeus, 1758, which is the type species of the genus *Plebejus* Kluk, 1802. This species is therefore now commonly known as *Plebejus argus* (Linnaeus, 1758).

The photograph here reproduced was published in 1909 in Tutt (J.W.), Natural History of the British Butterflies as Figure 1 on Plate XX. In the present application the International Commission on Zoological Nomenclature is asked to use its Plenary Powers to designate this figure as the standard to be used for the identification of the taxonomic species represented by the nominal species Papilio argus Linnaeus, 1758.

Figure "B":

Male genitalia of the species referred to in the present application as Species "B"

The species here portrayed is widely distributed in West, Central and Southern Europe but does not extend to the British Isles, although occurring in Scandinavia. This species was first separated from Species "A" in 1775, by Schiffermüller & Denis, who gave the new name Papilio aegon to Species "A" and misidentified the present species as Papilio argus Linnaeus, 1758. From 1871 up to 1935 this species was commonly, though incorrectly, known by the trivial name argyrognomon Bergsträsser, [1779], with which it had first been so identified by Kirby when he established that the trivial name argus Linnaeus, 1758, was not available for this species, being the name properly applicable to Species "A". In order to end the great confusion which at present exists regarding the name applicable to Species "B", the present applicants ask the Commission to use its Plenary Powers in such a way as to make the name Papilio idas Linnaeus, 1761, the oldest available for this species. Species "B" is commonly considered to be congeneric with the type species of the genus Lycaeides Hübner, [1819], and accordingly, if the present application is approved, this species will, on the foregoing taxonomic view, be known as Lycaeides idas (Linnaeus, 1761).

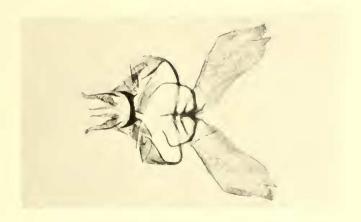
The photograph here reproduced was published in 1917 in volume 14 of Oberthur's Etudes de Lépidoptérologie comparée as figure 7 on Plate III. In the present application the International Commission is asked to use its Plenary Powers to designate this figure as the standard to be used for the identification of the taxonomic species represented by the nominal species Papilio idas Linnaeus, 1761.

Figure "C":

Male genitalia of the species referred to in the present application as Species "C"

The species here portrayed was first detected as being distinct from Species "B" in 1917 by Chapman who gave the new name *Plebejus aegus* to the subspecies of this species which he was then examining. Later investigations by various authors showed that a considerable number of subspecies of this species had already been named by authors who had regarded those subspecies as being referable to Species "B". Ultimately, Beuret (1935) established that the oldest available name for this species was *Papilio argyrognomon* Bergsträsser, [1779] (a name which had previously been widely used for Species "B"). Bergsträsser's species is the type species of the genus *Lycaeides* Hübner, [1819], and the present species is therefore commonly known as *Lycaeides argyrognomon* (Bergsträsser, [1779]).

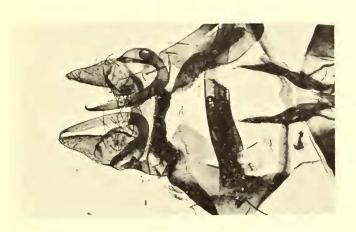
The photograph here reproduced was published in 1917 in volume 14 of Oberthur's Etudes de Lépidoptérologie comparée as figure 23 on Plate VIII. In the present application the International Commission is asked to use its Plenary Powers to designate this figure as the standard to be used for the identification of the taxonomic species represented by the nominal species Papilio argyrognomon Bergsträsser, [1779].



A



В





(3) Species "B" and "C": conspicuous differences

While, as was to be expected, the male genitalia in Species "B" and Species "C" exhibit the same general pattern, the various structures show marked differences. (a) Uncus: This is noticeably shorter and more massive in Species "B" than in ", the base of the isosceles triangle being relatively Species "C longer and the two other sides relatively shorter than in Species "C", in which species the whole structure has a much lighter and more slender appearance. (2) Lateral apophyses to the uncus: In Species "B" the lateral apophyses of the uncus are fairly broad and have a regular sweeping curve from the point of origin for a distance equal to about one half of the total length, the outer portion being much straighter and bending slightly inwards. In Species "C", the basal portion is more sharply bent than in Species "B" and, unlike that species, extends for less than half the total length of the process. In consequence, the outer portion of this process is, in Species "C" noticeably longer than in Species "B". It is moreover much straighter than in Species "B". (3) Terminal portion of the clasps: In Species "B", the terminal toothed portion of the clasp has a marked angular bend at the neck, whereas in Species "C" this bend is only poorly developed. In Species "B" this structure bears a series of well marked teeth, the number present varying in different examples and ranging from nine to twelve. In Species . C ", these teeth are rather more numerous but are very much smaller than in Species "B". The characters which distinguish the male genitalia of Species "B" and "C" are beautifully shown in the long series of microphotographs published in volume 14 of Oberthur's Études de Lépidoptérologie comparée in the learned and masterly paper by Thomas Algernon Chapman published in that volume. Of the genitalia so illustrated that reproduced as figure 7 on plate III of the above volume may be taken as typifying Species "B", and that reproduced as figure 23 on plate VIII of the same volume as typifying Species "C".

3. Linnaeus in 1758 recognised only one of these species to which he gave the name *Papilio argus* (Linnaeus, 1758, *Syst. Nat.* (ed. 10) 1:483). The species so named was Species "A" and is the species now always known as *Plebejus argus* (Linnaeus, 1758). There is a male syntype of this species preserved in the Linnean collection at Burlington House. This species occurs over a fairly wide area in Sweden and was known to Linnaeus from his own country, as it was included by him in the First (pre-1758) edition of his *Fauna svecica*, the reference to which ("Fn. svec. 803, 804") was the first of the numerous references cited by Linnaeus in 1758. For this reason "Sweden" has been commonly treated as the "restricted" locality for the nominotypical subspecies of this nominal species and is here formally selected as such.

- 4. In 1761, while retaining his *Papilio argus* in the Swedish list, Linnaeus introduced a new nominal species to which he gave the name *Papilio idas* (Linnaeus, 1761, *Faun. svec.* (ed. 2): 284, no. 1075). This name is invalid, as it is a junior homonym of the name *Papilio idas* Linnaeus, 1758 (*Syst. Nat.* (ed. 10) 1: 488, no. 192). This latter name applies to some species of Oriental Hesperiid, the identity of which it has never been possible to determine with certainty. On the ground, presumably, of homonymy, the name *Papilio idas* Linnaeus, 1761, was rejected by contemporary authors. It was treated by Schiffermüller and Denis in 1775 (*Ankündung syst. Werk. Schmett. wien. Gegend*: 184, no. N.14) as applying to a female of Species "B", which, as we shall see (paragraph 5 below) those authors misidentified with the nominal species *Papilio argus* Linnaeus, 1758. The identity of the species to which the invalid name *Papilio idas* Linnaeus, 1761, is applicable has been the subject of much discussion during the last three decades. It will be convenient, however, to postpone the further consideration of this aspect of the question until we reach the appropriate point in our historical survey.
- 5. The first major element of confusion in the nomenclature of the species with which we are here concerned was introduced by Schiffermüller and Denis in 1775 in their Ankündung eines systematischen Werkes von der Schmetterlingen der Wienergegend, better known by the title Systematisches Verzeichniss der Schmetterlinge der Wienergegend under which, in an edition identical except for the title page, it was published in 1776. These authors were well aware of the existence of two similar species—Species "A" and Species "B"—and were in fact the first authors to recognise the existence of the latter species. Unfortunately, however, they applied the trivial name argus Linnaeus, 1758, not to the species (Species "A") so named by Linnaeus, but to their newly detected species, Species "B". This left Species "A" without a name, and they accordingly gave it a new name, Papilo aegon Schiffermüller and Denis, 1775 (Ankündung syst. Werk. Schmett. Wienergegend: 185, no. N.15).
- 6. So eminent were the merits of Schiffermüller and Denis' great work and so commanding their influence that their unfortunate misidentification of *Papilio argus* Linnaeus was widely followed and, indeed, persisted unchallenged for almost exactly one hundred years. For it was not until 1871 that Kirby (*Syn. Cat. diurn. Lep.*: 357) restored the name *Papilio argus* Linnaeus to its rightful owner, Species "A".
- 7. This left Species "B", the distinctness of which from Species "A" was by this time recognised by all workers, once more without a trivial name. It was at this point unfortunately that Kirby introduced the second great element of confusion into the nomenclature of the species with which we are here concerned, though the mistake so made

was unavoidable in the then state of knowledge of these species. What Kirby did was to examine the literature for the purpose of determining what was the first name to be published for Species "B" by any author subsequent to the publication in 1775 of Schiffermüller's Ankündung. This examination led Kirby to the conclusion that the oldest such name was Papilio argyrognomon Bergsträsser, [1779] (Nomencl. Beschr. Ins. Grafschaft Hanau-Münzenberg 2:76, pl. 46, figs. 1, $2\emptyset$). Kirby was perfectly correct in concluding that the species so named by Bergsträsser was not Species "A" and it followed automatically at that time that he should conclude that it was Species "B", the only species then known to which it could be referred. By an extraordinary stroke of ill-luck, it was found some sixty years later that this nominal species represents not Species "B" (as Kirby thought) but Species "C", the existence of which as a separate species was not detected until 1917. Kirby's use of the trivial name argyrognomon Bergsträsser for Species "B" won rapid acceptance, except among a few workers who obstinately continued to apply the name argus Linnaeus to this species, refusing to abandon the Schiffermüller system for the naming of this, and Species "A". Subject to the foregoing qualification, the trivial name argyrognomon ultimately became the universally accepted name for the Species "B" and it retained this unchallenged position until in 1935 a fresh taxonomic examination of Bergsträsser's description and figures showed that this name applied not to Species "B" but to Species "C".

- 8. The opening phase of the next stage was marked by the discovery by Chapman of a third species closely allied to, but quite distinct from, Species "B". The species so discovered was Species "C", but at this early date it was considered that the species was entirely new in the sense that it was not realised that other subspecies of it had already been described as belonging to Species "B". Chapman gave to his new species the trivial name aegus (Plebejus aegus Chapman, 1917, in Oberthur, Et. Lép. comp. 14: 41-57, pl. VII, figs. 19-21 (male genit.), pl. VIII, figs. 22-24 (male genit.), pl. XIII, fig. 39 (female genit.), pl. XIX, fig. 57 (male androconia), pl. XX, fig. 60 (male underside)). This species was based upon specimens taken in the immediate neighbourhood of Geneva (Veyrier; Versoix; Trelex). Chapman did not designate a holotype, but in this as in other cases he gave his types to the British Museum (Natural History).
- 9. It was not long before Chapman's discovery led to a search among the described subspecies of Species "B" for other representatives of Species "C". Following a suggestion thrown out by Chapman himself (:49) in the paper in which he described *Plebejus aegus*, the first previously described subspecies definitely to be found to be referable to Species "C" and not to Species "B" was that to which in 1910 Courvoisier had given the trivial name *ligurica* (*Lycaena argus* var. *ligurica* Courvoisier, 1910, *Ent. Z.* 24:81 "Ufern des

Luganersees "; id., 1911, Deuts. ent. Z. Iris 25: 103, pl. 2, fig. 16). In consequence, for a time, the collective species "C" was known by the trivial name ligurica. Very shortly afterwards, however, it became evident that the subspecies from Japan and the Far East till then referred to Species "B" should be referred either to Species "C" or to a fourth species closely allied to it. Unfortunately, the literature at this point is again confused by errors of identification, for Reverdin, in associating the Japanese subspecies with Species "C" (Reverdin, 1917, in, Oberthur, 1917, Et. Lép. comp. 14: 25), following an earlier error of identification by Oberthur (1910, Et. Lép. comp. 4: 200, pl. 42, figs. 3053, 3062), applied to that subspecies the name insularis Leech (Lycaena argus var. insularis Leech, 1893, Butts. China Japan Corea (2): 302, pl. 31, figs. 59, 85 "Island of Yesso, Hakodate"). The name insularis Leech is, as Hemming has shown (Hemming, 1932, Stylops 1: 176, pl. 3, figs. 1, 2 (genitalia of holotype)), a junior synonym of the name pseudaegon Butler, 1881 (Lycaena pseudaegon Butler, 1881, Proc. zool. Soc. Lond. 1881:851, "Iburi Hokkaido"), and is a subspecies of Species "A" (Plebejus argus (Linnaeus, 1758)). By this unfortunate chance, therefore, the collective species "C" came to be known by a name which rightfully belonged to Species "A". In the years 1930 to 1933, discussion turned to the question of the identity of the nominal species Polyommatus ismenias Meigen, 1829 (Syst. Beschr. europ. Schmett. 2 (1): 33, pl. 49, figs. A, B♂, C, D♀). The leaders of this discussion were: Heydemann, 1930, 1931, 1932; Beuret, 1931, 1932; Stemppfer and Schmidt, 1932; Stemppfer, 1932, 1933. As a result, it became evident that the name ismenias Meigen (for which, unfortunately, no locality had been cited by its author) applied to a subspecies of Species "C". In consequence, the name ismenias Meigen was treated as the name of the collective species "C", of which by this time there was a considerable group of named subspecies.

10. The final stage of this complicated story was reached in 1935 when Beuret (Lambillionea 35: 162-172) demonstrated that the insect described and figured by Bergsträsser in 1779 as Papilio argyrognomon, for so long and so universally identified with Species "B", was in fact referable not to that species but to Species "C". To make matters worse, this trivial name was by far the oldest applied to any subspecies of Species "C" and accordingly, under the Règles, became the name applicable to the collective species as a whole. This discovery had a catastrophic effect upon the nomenclature of the species with which we are here concerned, for not only (1) did it involve (as noted above) the disastrous transfer of the name argyrognomon Bergsträsser from Species "B" to Species "C", but (2), in addition, it re-opened the question of the name properly applicable to the collective Species "B". This latter result created the most serious difficulties, since the inadequacy of the original descriptions for many of the older names which might be applicable to Species "B", the crude nature of the original

figures, in those cases where figures had been published by the original authors, and the absence of type specimens made it impossible to determine with certainty whether any, and, if so, which, of the names given by early authors to nominal species, the names of which had hitherto been synonymised with Species "B", really belonged to that species or whether they were applicable to Species "C". So great were the difficulties that, if an attempt had been made to apply the ordinary rules strictly in the present case, it would have been necessary to pass over a large number of names as being nomina dubia before in the historical sequence a name was reached which was indubitably applicable to Species "B" and not to Species "C". Clearly, such a situation could not have failed to lead to the utmost instability in the nomenclature of this species, for inevitably attempts would be made by one author or another at different times to identify with Species "B" one of the names passed over as nomina dubia.

11. Beuret himself was appalled by the situation created by his discovery, and it was in an attempt to avoid the confusion which would inevitably follow the transfer of the name argyrognomon Bergsträsser from Species "B" to Species "C" that he actually suggested that this name should be retained for Species "B", notwithstanding the fact that he had himself clearly shown that Bergsträsser had applied it to Species "C". Moreover, as Beuret had shown, a subspecies of Species "B" occurred in the same locality as argyrognomon Bergsträsser (Species "C"). A solution on these lines would therefore have called for a complicated series of acts by the International Commission under its Plenary Powers. The objections involved were generally considered too serious to make this course acceptable, and this suggestion was accordingly dropped. Thereafter, attention was concentrated upon the question of finding an acceptable name for Species "B" and no action was taken to prevent the transfer of the name argyrognomon Bergsträsser from Species "B" to Species "C", although the confusion resulting from that transfer was likely to be fully as great as that caused by uncertainties as to the name to be applied to Species "C". In retrospect, it is now clear that the best course would have been to secure from the International Commission a decision under its Plenary Powers, (a) suppressing the name argyrognomon Bergsträsser for the purposes of the Law of Priority, and (b) expressly validating in some appropriate manner the name ismenias Meigen for use for Species "C". For the use of the name argyrognomon Bergsträsser for Species "B" ever since 1871 had so deeply compromised that name that its use for the closely allied species Species "C" could not fail to give rise to serious and enduring confusion, while the validation of the name ismenias Meigen for Species "C" would have had the great advantage that it would have provided that species with a name which, though often placed in the synonymy of Species "B", had never been used for that species. No doubt the reasons which in the mid-thirties militated against the submission to the International Commission of an application on the foregoing lines were the extreme

reluctance for many years shown by that body to make use of its Plenary Powers and the state of disorganisation into which it had fallen, following the disputes which occurred at the meeting of the International Congress of Zoology held at Padua in 1930. Now that these impediments have been swept away, it must be a matter for serious consideration whether, despite the lapse of time which has occurred, a proposal in the above sense should not now be submitted to the International Commission, for, although the correct application of the name argyrognomon Bergsträsser is clearly understood by specialists in this group, the utmost confusion still obtains in its use in general entomological literature.

- 12. The nomenclatorial impasse created by the impossibility of determining what is the oldest available name for Species "B" has led to renewed consideration of a proposal originally put forward in a rather different form, by Verity in 1913 (J. linn. Soc. Lond. (Zool.) 32: 189), namely that the International Commission should be asked to suppress the trivial name idas Linnaeus, 1758, as published in the combination Papilio idas, thus rendering available for Species "B" the name idas Linnaeus, 1761, as published in the same combination. This proposal has many important advantages: (1) It involves no disturbance whatever in the nomenclature of other groups, for (as explained in paragraph 4 of the present application) it has never been found possible to identify the species to which the name *Papilio idas* Linnaeus, 1758, is applicable and, in consequence, the suppression of the name idas Linnaeus, 1758 under the Commission's Plenary Powers would not cause a ripple anywhere. (2) The name idas Linnaeus, 1761, has never been applied to any of the species here under consideration, with the exception of Species "B". If therefore it were now to be applied specifically to Species "B" and, subspecifically, to the Swedish subspecies of that species, every worker would in future know to what species reference was being made when the name idas was used. (3) The very early date (1761) of the name idas Linnaeus provides an insurance against the risk of there being some earlier name which would take priority over idas Linnaeus as the name for the collective species "B". (4) A settlement on the foregoing lines would not in any way prejudice the taxonomic question of the relationship of the insects here referred to as Species "B" and Species "C", since any worker who (contrary to the present general opinion) may regard the populations in question as conspecific would be free to treat, as the name of a subspecies of the collective species "B" (= idas Linnaeus, 1761), the name argyrognomon Bergsträsser (the oldest available name for the group of subspecies treated by the present applicants as together constituting the collective species "C").
- 13. Under the foregoing proposal, the determination of the identity of the taxonomic species represented by the nominal species "B"

would rest exclusively upon a decision taken by the International Commission under its Plenary Powers. It is therefore not necessary because not relevant—to consider in detail the question of the surviving material of Papilio idas Linnaeus, 1761, in the Linnean collection in Burlington House. This nominal species was undoubtedly based upon a blue female with orange submarginal lunules on the upperside of the hindwings, as is shown by the diagnosis given by Linnaeus which reads as follows:—" alis ecaudatis caeruleis: posticis fascia terminali rufa ocellari: subtus rotundatis pupillis caeruleoargenteis". A specimen agreeing with this diagnosis is still extant in the Linnean collection. This specimen was examined by Verity who took the view (1913, J. linn. Soc. Lond. (Zool.) 32: 189) that it was certainly referable to the species to which Staudinger in 1901 (Cat. Lepid. pal. Faunengeb. 1:78) had applied the name argyrognomon Bergsträsser, i.e., to Species "B". In addition, the Linnean collection contains under Papilio idas a brown female, which it is agreed is of Linnean origin. This specimen was examined in 1913 by Verity (l.c.) who considered that it might be referable to Papilio argus Linnaeus (i.e., to Species "A") but was of the opinion that it was more probably referable to argyrognomon Bergsträsser, as interpreted by Staudinger (i.e., to Species "B"). Quite recently, however, this specimen has been re-examined by Dr. A. Steven Corbet (British Museum (Natural History), London) who informs us (in litt.) that he is definitely of the opinion that it is referable to Papilio argus (i.e., to Species "A"). At first sight, therefore, the Linnean collection appears to suggest that Papilio idas Linnaeus, 1761, as conceived by Linnaeus included a blue female of Species "B", which Linnaeus probably regarded as the male of *idas*, and a brown female of Species "A", which Linnaeus no doubt, regarded as the female of his new species. This possibility is supported by the fact that in 1761, after describing the blue female under the name Papilio idas, Linnaeus retained the description of the brown female which in the First Edition (1746) he had treated as his species No. 805. In view, however, of the fact that already in 1758 (in the Tenth Edition of the Systema Naturae) Linnaeus had recognised that his species No. 804 of 1746 was no more than the (brown) female of the species which he then named Papilio argus and which in 1746 he had treated as species No. 803, it is extremely unlikely that three years later (1761) he would have once more separated from Papilio argus the brown female which belonged to it and have thus repeated the mistake made in 1746. A much more probable explanation is that the inclusion in 1761 under *Papilio idas* of the description given in 1746 for species No. 804 (= the brown female of *argus*) was due to an inadvertent slip in the preparation of the Second Edition of the That edition, it must be noted, is substantially the same book as the First Edition, subject to (1) the addition throughout of binominal names, (2) certain re-arrangements in the order in which the species are listed, (3) the addition of a few new species. The text of 1761 for the species noted in the First Edition is the same as that given for those species in the earlier edition, subject here and there

to a few minor changes and additions. It cannot be doubted therefore that the 1761 edition was prepared for the printer by the addition of manuscript changes in a copy of the edition of 1746. This being so, it would not be surprising to find that occasionally obsolete passages belonging to the First Edition were carried over inadvertently into the Second Edition. This is what seems to have happend in the present case, for in the Second Edition (a) the entry for Papilio argus gives only the reference to the species numbered "803" in 1746 (i.e., the male of argus) and the description and references then given for this species (notwithstanding the fact that in 1758 Linnaeus had recognised that species no. 804 of 1746, as well as species no. 803, belonged to argus), (b) the entry for the next species, *Papilio idas*, under the number "1075", contained not only the newly written diagnosis for that species but also the diagnosis written for the species (no. 804) (= the brown female of argus) which in 1746 immediately followed the species then numbered 803 (named Papilio argus in 1758) which again in 1761 was the immediately preceding species. It may therefore reasonably be concluded that it was only by inadvertence that in the 1761 edition the diagnosis given in 1746 for species no. 804 was retained under the number 1075 (Papilio idas) in the copy sent to the printer, instead of being deleted and that it was for the same reason that in the 1761 edition no reference was made under the number "1074" (Papilio argus) to the view expressed in 1758 (Syst. Nat.) that the species no. 804 of 1746 as well as the species no. 803, was referable to argus, the description given for argus in 1761 being almost identical with that given in 1746 for species no. 803. If the retention in 1761 of the brown female under Papilio idas was due to the reasons suggested above, it would be no matter for surprise that in his collection Linnaeus also retained that insect under that name. While it is interesting to speculate as to what was the reason for the contradictory character of the statements made by Linnaeus in 1761 in regard to his Papilio idas, it is the diagnosis then given for that species and not the quotations from earlier editions then cited which must determine the identity of the species to which the name idas Linnaeus must apply. The diagnosis applies only to the blue female of Species "B" and it is therefore that species to which the name idas is applicable. Similarly, it is the blue female specimen of Species "B" now preserved in the Linnean collection which can alone be regarded as a surviving syntype of that species.

14. The application now submitted has the support of all the leading specialists in this group, including, in addition to the applicants: Dr. Roger Verity (Florence, Italy); Mr. N. D. Riley (British Museum (Natural History), London); Dr. A. Steven Corbet (British Museum (Natural History), London); Dr. V. Nabokov (Museum of Comparative Zoology, Harvard University, Cambridge, Mass., U.S.A.); Mr. B. J. Lempke (Amsterdam, The Netherlands).

- 15. The application now submitted may be summarised as being a request to the International Commission on Zoological Nomenclature:—
 - (1) to suppress under its Plenary Powers the trivial name *idas* Linnaeus, as published in the combination *Papilio idas*, thus validating the name *idas* Linnaeus, 1761, as published in the combination *Papilio idas*;
 - (2) to provide a definitive basis for the interpretation of the undermentioned trivial names by directing that the species so named shall be determined in the manner there specified:—
 - (a) the trivial name *idas* Linnaeus, 1761, as published in the combination *Papilio idas*:
 - The above name, as validated under (1) above, to be applied to the species, the nominotypical subspecies of which was collected by Linnaeus in Sweden, the male genitalia of which show the characters exhibited in the photograph reproduced as figure 7 on plate III in volume 14 of Oberthur, Études de Lépidoptérologie comparée, here refigured as figure "B" on plate 1;
 - (b) the trivial name *argyrognomon*, 1779, as published in the combination *Papilio argyrognomon*:
 - The above name to be applied to the species, the nominotypical subspecies of which was described by Bergsträsser from specimens collected in the "Bruchköbler Wald" in the "Grafschaft Hanau-Münzenberg", the male genitalia of which show the characters exhibited in the photograph reproduced as figure 23 on plate VIII in the volume cited in (a) above, here refigured as figure "C" on plate 1;
 - (c) the trivial name argus Linnaeus, 1758, as published in the combination *Papilio argus*:
 - The above name to be applied to the species, the nominotypical subspecies of which was described by Linnaeus from specimens collected in Sweden, the male genitalia of which show the characters exhibited in the photograph reproduced as figure 1 on plate XX in volume 3 of Tutt, *Natural History of the British Butterflies*, here refigured as figure "A" on plate 1.

II.—THE SUBSEQUENT HISTORY OF THE CASE

- 3. On the receipt of M. Beuret's preliminary communication, the problem raised in the present case was given the Registered Number Z.N.(S.) 60. Consultations in regard to the problem so raised were opened shortly afterwards, but these had not reached a decisive stage by the time that in September 1939 the outbreak of war in Europe led to the evacuation of the records of the Commission from London to the country as a precaution against the risk of destruction through air raids. The Secretariat in London was re-opened in 1942 and steps were immediately taken to establish the *Bulletin of Zoological Nomenclature* as a means for bringing to the attention of zoologists applications submitted to the Commission for decision. Work was at once started on outstanding applications with a view to arranging for their publication in the newly established Bulletin. It was decided at that stage that preference should be given to those cases for which formal applications had already been received, since those cases required, for the most part, but little further work before being sent to the printer for publication in the Bulletin. In consequence, it was not until 1946 that work on the present case was resumed.
- 4. The consultations conducted before the war and in the period 1946/47 showed that the principal specialists in the group concerned shared the view advanced by M. Beuret that the only practicable means for restoring order in the nomenclature of the association of Lycaenid species concerned was to secure, with the help of the International Commission, that the specific name idas Linnaeus, 1761, as published in the combination Papilio idas, should be made available for the species until then habitually known by the specific name argyrognomon Bergsträsser [1779], as published in the combination Papilio argyrognomon. The specialists who supported this solution included: Dr. Roger Verity (Florence, Italy); Mr. N. D. Riley (Keeper, Department of Entomology, British Museum (Natural History), London); Dr. A. Steven Corbet (British Museum (Natural History), London); Dr. V. Nabokov (Museum of Comparative Zoology, Harvard University, Mass., U.S.A.); Mr. B. J. Lempke (Amsterdam, The Netherlands); Mr. B. C. S. Warren (Winchester, England); Mr. Francis Hemming (London, England).

- Opinion, it was agreed that a formal application should be submitted to the International Commission jointly by Mr. Francis Hemming and M. Henry Beuret. This application, it was further agreed, should be of a comprehensive character and should be designed not only to secure availability for the specific name idas Linnaeus, 1761, as published in the combination Papilio idas, but in addition to obtain from the International Commission an authoritative ruling both as to the way in which this name should be applied but also how the names currently accepted by specialists for the two other species involved should be applied, it being hoped thereby to achieve a final solution for the nomenclature to be used for these species. The joint application prepared on these lines was completed in May 1947 and was at once submitted to the Commission.
- 6. At Paris in 1948 the International Commission on Zoological Nomenclature suspended its By-Laws for the duration of that Session (1950, *Bull. zool. Nomencl.* 4:7-8), and it was in virtue of that decision that the present case was brought before the Commission later during that Session.

III.—THE DECISION OF THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

7. The present application was considered by the International Commission on Zoological Nomenclature at the Fourteenth Meeting of its Paris Session held at the Sorbonne in the Amphithéâtre Louis-Liard on Monday, 26th July 1948 at 2030 hours. The following is an extract from the Official Record of the Proceedings of the International Commission, summarising the discussion of this case at the foregoing meeting after the problem

involved had been presented by the Acting President (Mr. Francis Hemming) (1950, Bull, zool. Nomencl. 4: 478-479):—

ALTERNATIVE COMMISSIONER N. D. RILEY (UNITED KINGDOM) said that, as had been indicated by the Acting President, he strongly supported the present proposal. He was convinced that stability would never be attained in the nomenclature of this group of species without the use by the Commission of their Plenary Powers. The settlement proposed would, he felt confident, be welcomed warmly by all interested specialists.

IN DISCUSSION it was agreed that this was a particularly clear case for the use of the Plenary Powers to put an end to a state of confusion in nomenclature which could be remedied in no other way.

8. The following is an extract from the Official Record of the Proceedings of the International Commission at the foregoing meeting, setting out the decision then reached by the Commission in this case (Paris Session, 14th Meeting, Conclusion 23) (1950, Bull. zool. Nomencl. 4: 475-480):—

THE COMMISSION agreed:—

- (1) to use their Plenary Powers :-
 - (a) to suppress the trivial name *idas* Linnaeus, 1758, as published in the binominal combination *Papilio idas*;
 - (b) to validate the trivial name *idas* Linnaeus, 1761, as published in the binominal combination *Papilio idas*;

(c) to direct :-

- (i) that the trivial name *idas* Linnaeus, 1761, as published in the binominal combination *Papilio idas*, validated as specified in (b) above, should be applied to the species (the nominotypical subspecies of which was described by Linnaeus from specimens collected in Sweden), the male genitalia of which show the characters exhibited in the photograph published by Chapman (T.A.) in 1917 as figure 7 of plate III in Volume 14 of Oberthur's *Etudes de Lépidoptérologie comparée* (photograph of the male genitalia of a specimen collected at Allos (Basses-Alpes, France) and figured as "*Plebeius argus* var. *alpina*");
- (ii) that the trivial name argyrognomon Bergsträsser [1779], as published in the binominal combination Papilio argyronomon, should be applied to the species (the nominotypical subspecies of which was described by Bergsträsser from specimens collected in the "Bruchköbler Wald" in the "Grafschaft Hanau-Münzenberg"), the male genitalia of which show the characters exhibited in the photograph published by Chapman (T.A.) in 1917 as figure 23 on plate VIII in Volume 14 of Oberthur's Lépidoptérologie comparée de (photograph of the male genitalia of a specimen collected at Versoix (Switzerland) and figured as "Plebeius aegus");
- (iii) that the trivial name argus Linnaeus, 1758, as published in the binominal combination Papilio argus, should be applied to the species (the nominotypical subspecies of which was described by Linnaeus from specimens collected in Sweden), the male genitalia of which show the characters exhibited in the photograph published by Chapman (T.A.) in 1909 as figure 1 on

plate XX in Volume 3 of Tutt's Natural History of the British Butterflies (photograph of the male genitalia figured as "Plebeius argus ");

- (2) to place the trivial name idas Linnaeus, 1758, as published in the binominal combination *Papilio idas*, suppressed under (1) (a) above, on the Official Index of Rejected and Invalid Specific Trivial Names in Zoology;
- (3) to place the under-mentioned trivial names on the Official List of Specific Trivial Names in Zoology: idas Linnaeus, 1761, as published in the binominal combination Papilio idas, as validated (1) (b) above and as defined in (1) (c) (i) above;

argyrognomon Bergsträsser [1779], as published in the binominal combination Papilio argyrognomon, as

defined in (1) (c) (ii) above;

argus Linnaeus, 1758, as published in the binominal combination Papilio argus, as defined in (1) (c) (iii) above;

(4) to render an *Opinion* recording the decisions specified in (1) to (3) above.

9. The following are the original references for the names which appear in the decisions set out in the immediately preceding paragraph:—

argus, Papilio, Linnaeus, 1758, Syst. Nat. (ed. 10) 1:483 argyrognomon, Papilio, Bergsträsser, [1779], Nomencl. Beschr. Ins. Grafschaft-Münzenberg 2: 76, pl. 46, figs. 1, 2♀ idas, Papilio, Linnaeus, 1758, Syst. Nat. (ed. 10) 1:488 idas, Papilio, Linnaeus, 1761, Fauna svec. (ed. 2): 284, no. 1075

10. The decision taken in the present case was reported to, and approved by, the Section on Nomenclature of the Thirteenth